HOW YOUR BRAIN UNDERSTANDS WHAT YOUR EAR HEARS

Idaho Science Content Standards – Grades 6, 7, 8

| Lesson | Standard | Descriptor |
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| 2, 4 | 6.S.1.2.1 | Explain how observations and data are used as evidence on which to base scientific explanations and predictions. |
| All lessons | 6.S.1.2.2 | Use observations to make inferences. |
| 2, 3, 4 | 6.S.1.2.3 | Use models to explain or demonstrate a concept. |
| 1, 3, 4 | 6.S.1.3.1 | Analyze changes that occur in and among systems. |
| 3, 4 | 6.S.1.6.1 | Write and analyze questions that can be answered by conducting scientific experiments. |
| 3 | 6.S.1.6.2 | Conduct scientific investigations using a control and variables. Repeat same experiment using alternate variables. |
| 2, 3, 5 | 6.S.1.6.3 | Select and use appropriate tools and techniques to gather and display data. |
| All lessons | 6.S.1.6.4 | Use evidence to analyze data in order to develop descriptions, explanations, predictions, and models. |
| 3, 4 | 6.S.1.6.5 | Test a hypothesis based on observations. |
| 3, 4, 5 | 6.S.1.6.6 | Communicate scientific procedures and explanations. |
| 3, 4 | 6.S.1.8.1 | Read, give, and execute technical instructions. |
| 4 | 6.S.3.3.1 | Identify the different structural levels of which an organism is comprised (cells, tissues, organs, organ systems, and organisms). |
| 4 | 7.S.1.1.3 | Identify the different structural levels of an organism (cells, tissues, organs, and organ systems). |
| 2, 4 | 7.S.1.2.1 | Describe how observations and data are evidence on which to base scientific explanations and predictions. |
| All lessons | 7.S.1.2.2 | Use observations to make defendable inferences. |
| 3, 4 | 7.S.1.2.3 | Use models to explain or demonstrate a concept. |
| 3 | 7.S.1.6.1 | Identify controls and variables used in scientific investigations. |
| 2, 3, 5 | 7.S.1.6.2 | Use appropriate tools and techniques to gather and display data. |
| All lessons | 7.S.1.6.3 | Evaluate data in order to form conclusions. |

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| 7.S.1.6.4 | Use evidence and critical thinking to accept or reject a hypothesis. | |
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| 7.S.1.6.5 | Evaluate alternative explanations or predictions. | |
| 7.S.1.6.6 | Communicate and defend scientific procedures and explanations. | |
| 7.S.1.8.1 | Read and evaluate technical instructions. | |
| 7.S.3.3.1 | Explain the relationships among specialized cells, tissues, organs, organ systems, and organisms. | |
| 8-9.PS.1.2.1 | Use observations and data as evidence on which to base scientific explanations. | |
| 8-9.PS.1.2.2 | Develop models to explain concepts or systems. | |
| 8-9.PS.1.2.3 | Develop scientific explanations based on knowledge, logic, and analysis. | |
| 8-9.PS.1.3.1 | Measure changes that can occur in and among systems. | |
| 8-9.PS.1.3.2 | Analyze changes that can occur in and among systems. | |
| 8-9.PS.1.6.1 | Identify questions and concepts that guide scientific investigations. | |
| 8-9.PS.1.6.2 | Utilize the components of scientific problem solving to design, conduct, and communicate results of investigations. | |
| 8-9.PS.1.6.3 | Use appropriate technology and mathematics to make investigations. | |
| 8-9.PS.1.6.4 | Formulate scientific explanations and models using logic and evidence. | |
| 8-9.PS.1.6.5 | Analyze alternative explanations and models. | |
| 8-9.PS.1.6.6 | Communicate and defend a scientific argument. | |
| 8-9.PS.1.6.7 | Explain the differences among observations, hypotheses, and theories. | |
| 8-9.PS.2.3.1 | Explain that energy can be transformed but cannot be created nor destroyed. | |
| Idaho Mathematics Content Standards – Grades 6, 7, 8 | | |
| Standard | Descriptor | |
| 6.M.1.2.3 | Evaluate numerical expressions with whole numbers using the order of operations (excluding exponents). | |
| 6.M.1.2.4 | Select and use an appropriate method of computation from mental math, paper and pencil, calculator or a combination of the three. | |
| 6.M.1.2.5 | Use a variety of strategies to solve real life problems. | |
| | 7.S.1.6.5 7.S.1.6.6 7.S.1.8.1 7.S.3.3.1 8-9.PS.1.2.1 8-9.PS.1.2.2 8-9.PS.1.2.3 8-9.PS.1.3.1 8-9.PS.1.3.2 8-9.PS.1.6.1 8-9.PS.1.6.2 8-9.PS.1.6.3 8-9.PS.1.6.5 8-9.PS.1.6.5 8-9.PS.1.6.6 8-9.PS.1.6.7 8-9.PS.2.3.1 Standard 6.M.1.2.3 6.M.1.2.4 | |

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| 3, 5 | 6.M.1.2.6 | Use appropriate vocabulary and notations. |
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| 5 | 6.M.1.3.1 | Estimate to predict computation results. |
| 3 | 6.M.3.4.3 | Use mathematical models to show change in a real world context. |
| 3 | 6.M.3.6.1 | Use patterns to represent and solve simple problems. |
| 3 | 6.M.5.1.1 | Read and interpret tables, charts, and graphs, including broken line graphs, bar graphs, frequency tables, line plots, and circle graphs. |
| 2, 3, 5 | 6.M.5.1.2 | Explain and justify stated conclusions drawn from tables, charts, and graphs. |
| 2, 3 | 6.M.5.2.1 | Collect, organize, and display the data with appropriate notation in tables, charts, and graphs, including broken line graphs, bar graphs, frequency tables and line plots. |
| 3, 5 | 6.M.5.5.1 | Make predictions based on data. |
| 3 | 7.M.1.2.5 | Select and use an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three. |
| 3 | 7.M.1.2.6 | Use a variety of strategies including common mathematical formulas to compute problems drawn from real life situations. |
| 3 | 7.M.1.2.7 | Use appropriate vocabulary and notations. |
| 5 | 7.M.1.3.1 | Estimate to predict computation results. |
| 3 | 7.M.3.4.2 | Explain how a change in one quantity impacts a change in another quantity. |
| 3 | 7.M.3.5.1 | Represent a simple set of data in a table, as a graph, and as a mathematical relationship. |
| 3 | 7.M.5.1.1 | Read and interpret tables, charts, and graphs, including frequency tables, scatter plots, broken line graphs, line plots, bar graphs, histograms, circle graphs, and stem-and-leaf plots. |
| 2, 3, 5 | 7.M.5.1.2 | Explain conclusions drawn from tables, charts, and graphs. |
| 2, 3, 5 | 7.M.5.2.1 | Collect, organize, and display data with appropriate notation in tables, charts and graphs, including scatter plots, broken line graphs, line plots, bar graphs, and stem-and-leaf plots. |
| 3 | 8.M.1.2.5 | Select and use an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three. |
| 3, 5 | 8.M.1.2.6 | Use a variety of strategies including common mathematical formulas to compute problems drawn from real life situations. |
| 3 | 8.M.1.2.7 | Use appropriate vocabulary and notations. |

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| 5 | 8.M.1.3.1 | Estimate to predict computation results. |
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| 3 | 8.M.3.4.2 | Use relationships to explain how a change in one quantity may result in a change in another, and identify the relationship as a positive, negative, or neither. |
| 3 | 8.M.5.1.1 | Analyze and interpret tables, charts, and graphs, including frequency tables, scatter plots, broken line graphs, line plots, bar graphs, histograms, circle graphs, and stem-and-leaf plots. |
| 2, 3, 5 | 8.M.5.1.2 | Explain and justify conclusions drawn from tables, charts, and graphs. |
| 2, 3, 5 | 8.M.5.2.1 | Collect, organize, and display data with appropriate notation in tables, charts, and graphs, including scatter plots, broken line graphs, line plots, bar graphs, histograms, and stem-and-leaf plots. |
| Idaho Language Arts Content Standards – Grades 6, 7, 8 | | |
| Lesson | Standard | Descriptor |
| 1, 3, 4, 5 | 6.LA.1.8.3 | Use words and concepts necessary for comprehending math, science, social studies, literature and other Grade 6 content area text. |
| 1, 3, 4, 5 | 6.LA.2.1.3 | Make inferences, draw conclusions and form opinions based on information gathered from text and cite evidence to support. |
| 1, 3, 4, 5 | 6.LA.2.2.2 | Generate how, why, and what-if questions for interpreting expository texts. |
| 2, 3, 4, 5 | 6.LA.2.2.4 | Follow multi-step written directions. |
| 2, 3, 5 | 6.LA.3.1.4 | Apply an appropriate writing format for purpose and audience. |
| 2, 3, 5 | 6.LA.3.5.2 | Share writing with intended audience. |
| 3 | 6.LA.4.2.1 | Write technical text that identifies a sequence of activities or processes. |
| 3, 4, 5 | 6.LA.4.4.1 | Write a response that identifies a text to self, text to world, and/or text to text connection. |
| 2, 3, 4, 5 | 6.LA.5.1.1 | Write fluently and legibly in print or cursive. |
| All lessons | 6.LA.6.1.3 | Listen to identify the tone, mood, and emotion conveyed in oral communications. |
| All lessons | 6.LA.6.1.4 | Listen to acquire and summarize information from a variety of sources. |
| All lessons | 6.LA.6.2.1 | Ask questions to elicit information, including evidence to support a speaker's position. |
| All lessons | 6.LA.6.3.2 | Demonstrate understanding of graphics, pictures, and charts appropriate to grade level. |
| 1, 3, 4, 5 | 7.LA.1.6.1 | Use context clues to aid in decoding of new words. |

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| 1, 3, 4, 5 | 7.LA.1.8.3 | Use prior knowledge, the text, context clues, and graphic features of text to predict, clarify, and/or expand word meanings and concepts. |
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| 1, 3, 4, 5 | 7.LA.2.1.3 | Make inferences, draw conclusions and form opinions based on information gathered from text and cite evidence to support. |
| 1, 3, 4, 5 | 7.LA.2.2.2 | Generate how, why, and what-if questions for interpreting expository texts. |
| 1, 3, 4, 5 | 7.LA.2.2.3 | Summarize the main idea (literal or inferential) and critical details of expository text. |
| 2, 3, 4, 5 | 7.LA.2.2.4 | Follow multi-step written directions. |
| 2, 3, 5 | 7.LA.3.1.4 | Match appropriate writing format to purpose and audience. |
| 3 | 7.LA.3.3.4 | Apply a variety of sentence structures to improve sentence fluency and enhance writing style. |
| 2, 3, 5 | 7.LA.3.5.1 | Publish writing in an appropriate format for the purpose and audience. |
| 3 | 7.LA.4.2.1 | Write technical text that identifies a sequence of activities or processes. |
| 2, 3, 4, 5 | 7.LA.5.1.1 | Write fluently and legibly in print or cursive. |
| All lessons | 7.LA.6.1.1 | Develop appropriate interpersonal listening skills (e.g., eye contact, body language |
| All lessons | 7.LA.6.1.4 | Listen to acquire and summarize information from a variety of sources. |
| All lessons | 7.LA.6.2.1 | Ask questions to elicit information, including evidence to support a speaker's position. |
| All lessons | 7.LA.6.3.2 | Demonstrate understanding of graphics, pictures, and charts appropriate to grade level. |
| 1, 3, 4, 5 | 8.LA.1.6.1 | Use context clues to aid in decoding new words. |
| 1, 3, 4, 5 | 8.LA.1.8.3 | Define words and concepts necessary for comprehending Grade 8 content area text. |
| 1, 3, 4, 5 | 8.LA.2.1.3 | Make inferences, draw conclusions, and form opinions based on information gathered from text and cite evidence to support. |
| 1, 3, 4, 5 | 8.LA.2.2.2 | Generate how, why, and what-if questions for interpreting expository texts. |
| 1, 3, 4, 5 | 8.LA.2.2.3 | Apply central ideas (literal of inferential) and critical details to summarize information from expository text. |
| 2, 3, 5 | 8.LA.3.1.4 | Match appropriate writing format to purpose and audience. |
| 2, 3, 5 | 8.LA.3.5.1 | Publish writing in an appropriate format for the purpose and audience. |
| 2, 3, 5 | 8.LA.3.5.4 | Share writing with intended audience. |
| 3 | 8.LA.4.2.1 | Write technical text that identifies a sequence of activities or processes. |

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| 2, 3, 4, 5 | 8.LA.5.1.1 | Write fluently and legibly in print or cursive. |
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| All lessons | 8.LA.6.1.1 | Listen to acquire and summarize information from a variety of electronic or live sources. |
| Idaho Health Content Standards – Grades 6, 7, 8 | | |
| Lesson | Standard | Descriptor |
| 4, 5 | 6.H.1.1.2 | Identify prevention, causes, and treatment of diseases and disorders. |
| 4 | 6.H.1.1.7 | Identify the functions and characteristics of the major body systems. |
| 3, 5 | 6.H.1.1.10 | Describe environmental health issues and their relationships to a healthy lifestyle. |
| 4, 5 | 7-8.H.1.1.2 | Identify the prevention, causes, symptoms, treatment, and consequences of diseases and disorders. |
| 3, 5 | 7-8.H.1.1.9 | Examine environmental health and recognize how it relates to a healthy lifestyle. |
| 5 | 7-8.H.2.1.2 | Evaluate the impact of risky behavior on personal health. |

B. Houtz